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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/706,472

11/10/2003

Thomas James Batzinger

RD-28,303-1

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GENERAL ELECTRIC COMPANY  
GLOBAL RESEARCH  
PATENT DOCKET RM. BLDG. K1-4A59  
NISKAYUNA, NY 12309

EXAMINER

SMITH, NICHOLAS A

ART UNIT

PAPER NUMBER

1742

MAIL DATE

DELIVERY MODE

03/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action  
Before the Filing of an Appeal Brief**

Application No.

10/706,472

Applicant(s)

BATZINGER ET AL.

Examiner

Nicholas A. Smith

Art Unit

1742

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires \_\_\_\_\_ months from the mailing date of the final rejection.  
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: \_\_\_\_\_.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

**AFFIDAVIT OR OTHER EVIDENCE**

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: In regards to Applicant's argument that Li (US Patent 6,355,156) does not anticipate claim 1 limitation of synchronizing by delaying the excitation of the ultrasonic sensor a dwell time  $T_d$  after a reduction of the potential difference, Examiner reminds Applicant that turning the power supply off (or more specifically, zero potential during pulsed electrochemical machining, i.e. off-times) does meet the limitation of a reduction of the potential difference. In regards to Applicant's argument that Klocke et al. (US 2003/0079989) does not teach claim 4 limitation of limiting the dwell time to about 7 ms to about 15 ms, Examiner reminds Applicant that Li teaches excitation of the ultrasonic sensor after bubbles have cleared the surface of the workpiece. Klocke et al. further teaches that bubble minimization is a results effective variable in electrochemical processes. While bubble reduction is not the claimed parameter in instant claims 4-7, one of ordinary skill would realize that dwell time is directly related to bubble minimization, in that, the longer the electrode is not energized, the more time there is for impinging flow to clear the electrode surface of bubbles to allow an accurate measurement. In regards to Applicant's argument that Li does not teach the claim 9 limitation of two ultrasonic sensors make measurements on both sides of an airfoil and including an offset time between ultrasonic sensor signal excitation, Examiner reminds Applicant that while Li et al. only specifically discloses one ultrasonic sensor to monitor the gap distance of one side of an airfoil in an electrochemical machining process (abstract, Figure 1), Li et al. does disclose two sides of an airfoil to be electrochemically machined (Figures 1 and 2). It would have been obvious to one of ordinary skill in the art to modify Li et al.'s electrochemical machining process to employ a second ultrasonic sensor on the second side of an airfoil in order monitor the gap distance of the second side of an airfoil (Li et al., abstract). Furthermore, with such a modification, Li et al. Would teach exciting a first ultrasonic sensor to direct an ultrasonic wave towards a surface of one of the electrodes and exciting a second ultrasonic sensor to direct an ultrasonic wave toward a surface of another of the electrodes. Furthermore, including an offset time between ultrasonic sensor signal excitation is a necessary adjustment inherent to a control system employing multiple emitting/receiving sensors in order to avoid attenuation or interference.

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